

## Office of Enforcement

**REGION 5**  
**77 West Jackson Boulevard**  
**Chicago, Illinois 60604**

[illegible]

5-140041

Project No. 02AH36 Project Name CHESHIRE MONITORING STUDY 90101A  
 AIR 2002 0044 ARRIVAL DATE: 3/7/2002 DUE DATE: 3/28/2002

Sampler  
 Mike Murphy

Cooler ID 1 Page 5-140041

Sample Id:	Station	Date / Time	Grab / Comp	Station Location	No Bottles	Tag Numbers
02AH36DO1	DO1	03/03/2002 00:00:00	<input type="radio"/> Grab <input checked="" type="radio"/> Com	GHS	1	5-340168 1 to 1

Bottle No. 1

Parameter

PM10

Sample Id:	Station	Date / Time	Grab / Comp	Station Location	No Bottles	Tag Numbers
02AH36SO1	SO1	03/03/2002 00:00:00	<input type="radio"/> Grab <input checked="" type="radio"/> Com	GHS	1	5-340167 1 to 1

Bottle No. 1

Parameter

PM10

Sample Id:	Station	Date / Time	Grab / Comp	Station Location	No Bottles	Tag Numbers
02AH36SO3	SO3	03/03/2002 00:00:00	<input type="radio"/> Grab <input checked="" type="radio"/> Com	ADDAVILLE	1	5-340170 1 to 1

Bottle No. 1

Parameter

PM10

## CENTRAL REGIONAL LABORATORY

### Data Checklist

Data Set AIR 2002 0044 Cheshire Monitoring  
PM10



Chain-of-Custody



Analysis Request Form(s)\*



Sample Tags



Transmittal Report w/signatures of the following:

- Analyst (s)
- Peer Reviewer
- Environmental Data Coordinator

\* Analysis Request Forms provide the data user a means to connect sample numbers with sampling locations

Prepared by: Sylvia Griffin 3/13/02  
Data Management Coordinator



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5 CENTRAL REGIONAL LABORATORY

536 SOUTH CLARK STREET

CHICAGO, ILLINOIS 60605

Date: **MAR 13 2002**

Subject: Review of Region 5 Data for **CHESHIRE MONITORING STUDY**

From: **Edgar Santiago, Chemist** *E.S.*  
Region 5 Central Regional Laboratory

To:

ttached are the results for: **CHESHIRE MONITORING STUDY**

CRL data set number: **20020044**

Samples analyzed for: **Suspended Particles**

Results are reported for sample designations: **2002AH36D01, 2002AH36S01, and 2002AH36S03.**



MAR 13 2002

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Data Management Coordinator and Date Received

Date Transmitted: MAR 13 2002

Please have the U.S. EPA Project Manager/Officer complete the Customer Satisfaction Survey, attached, or call the CRL Sample Coordinator at 3-1226.

Please sign and date this form below and return it with any comments to:

Sylvia Griffin  
Data Management Coordinator  
Region 5 Central Regional Laboratory  
ML-10C

\_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_  
Received by and Date

Comments:

<b>Data Set Number:</b>	<u>20020044</u>	<b>Parameter:</b>	<u>Suspended Particles</u>
<b>Facility Name:</b>	<u>CHESHIRE MONITORING STUDY</u>		
<b>Study Name:</b>	<u>CHESHIRE MONITORING STUDY</u>		
<b>Date of Narrative:</b>	<u>03/12/2002</u>	<b>Analyst:</b>	<u>ES</u>
		<b>Signature:</b>	<u>E.S.</u>

### ANALYSIS CASE NARRATIVE

Four (3) exposed filters were received for suspended particle analysis at the Central Regional Laboratory (CRL) on March 07, 2002. Those filters were fractions of clean filters, prepared at the CRL and sent to the field for exposure. Filter identification numbers and other pertinent information obtained from the individual filters and packaging envelopes are presented in the table below.

Filters ID	Samples ID	Tag Number
Q6279961	2002AH36D01	5-340168
Q6279963	2002AH36S01	5-340167
Q6279962	2002AH36S02	5-340170

Filter equilibrations and final weighting of exposed filters were performed according to CRL.SOP AIG047. Analysis of exposed filters began on 03/11/2002 and was completed on 03/12/2002. All exposed filters were in good conditions.

### QUALITY CONTROL (QC):

Analysis results were evaluated using the QC requirements of CRL.SOP AIG047. All the required quality control criteria for the laboratory, method, and system performance audits were evaluated and determined to be within the limits.

### SAMPLE RESULTS:

All the sample results are acceptable for use.

### ELECTRONIC DATA:

No electronic data.

ENVIRONMENTAL PROTECTION AGENCY  
REGION V  
CENTRAL REGIONAL LABORATORY  
FINAL RESULT REPORT FOR THE TEAM: ANALYTICAL AND INORGANIC (A&I)

DIVISION/BRANCH: AIR DIVISION SAMPLING DATE: 03/03/2002 LAB ARRIVAL DATE: 03/07/2002 DUE DATE: 03/28/2002  
DU NUMBER: 90101A DATA SET NUMBER: 20020044 STUDY: CHESHIRE MONITORING STUDY PRIORITY: 1 LABORATORY :CRL

SAMPLE #	CRL LOG NUMBER	SAMPLE DESCRIPTION	SUSPENDED PARTICLE (g/filter)			
1	2002AH36D01	GUIDING HANDS SCHOOL	0.0000			
2	2002AH36S01	GUIDING HANDS SCHOOL	0.0000			
4	2002AH36S03	ADDAVILLE	0.0097			
DATE OF ANALYSIS			03/11-12/2002			
ANALYST			E.S.			

Reviewed by: FAR Date: 3/12/2002

ENVIRONMENTAL PROTECTION AGENCY  
Office of Enforcement

CHAIN OF CUSTODY RECORD

REGION 5  
77 West Jackson Boulevard  
Chicago, Illinois 60604

PROJ. NO. 02AH36		PROJECT NAME Cheshire Monitoring study				NO. OF CON- TAINERS	<div style="text-align: right;">Activity Code: 12345</div> <div style="text-align: center; font-size: 2em; font-family: cursive;">AIR 20020044</div>										
SAMPLERS: (Print Name and Sign) Mike Murphy <i>Mike Murphy</i>																	
STA. NO.	DATE	TIME	COM P	GRAB	STATION LOCATION												TAG NUMBERS
DO1	3/3	00:00	X		GHS	1											5-340168 1 to 1
SO1	3/3	00:00	X		GHS	1											5-340167 1 to 1
SO3	3/3	00:00	X		ADDAVILLE	1											5-340170 1 to 1
																	GHS # 3012, Pstg Avg = 18.35
																	GHS # 3013, Pstg Avg = 18.9
																	Addaville, Pstg Avg = 18.7
																	NOTE: RUHS did NOT RUN due to OPERATOR ERROR.
Relinquished by: (Signature) <i>Mike Murphy</i>			Date / Time 3-3-02 14:18		Received by: (Signature) <i>William Lopez</i>			Ship To:									
Relinquished by: (Signature)			Date / Time		Received by: (Signature)			ATTN:									
Relinquished by: (Signature)			Date / Time		Received for Laboratory by: (Signature) <i>William Lopez</i>			Date / Time 3/7/02 11:20am		Airbill Number UPS # 1Z4011990140282402							
															Chain of Custody Seal Numbers		

5-140041

Project No. 02AH36 Project Name CHESHIRE MONITORING STUDY 90101A  
AIR 2002 0044 ARRIVAL DATE: 3/7/2002 DUE DATE: 3/28/2002

Sampler

Mike Murphy

Cooler ID 1 Page 5-140041

Sample Id:	Station	Date / Time	Grab / Comp	Station Location	No Bottles	Tag Numbers
02AH36DO1	DO1	03/03/2002 00:00:00	<input type="radio"/> Grab <input checked="" type="radio"/> Com	GHS	1	5-340168 1 to 1

Bottle No. 1

Parameter

PM10

Sample Id:	Station	Date / Time	Grab / Comp	Station Location	No Bottles	Tag Numbers
02AH36SO1	SO1	03/03/2002 00:00:00	<input type="radio"/> Grab <input checked="" type="radio"/> Com	GHS	1	5-340167 1 to 1

Bottle No. 1

Parameter

PM10

Sample Id:	Station	Date / Time	Grab / Comp	Station Location	No Bottles	Tag Numbers
02AH36SO3	SO3	03/03/2002 00:00:00	<input type="radio"/> Grab <input checked="" type="radio"/> Com	ADDAVILLE	1	5-340170 1 to 1

Bottle No. 1

Parameter

PM10

ENVIRONMENTAL PROTECTION AGENCY  
REGION V  
CENTRAL REGIONAL LABORATORY  
FINAL RESULT REPORT FOR THE TEAM: ANALYTICAL AND INORGANIC (A&I)

DIVISION/BRANCH: AIR DIVISION SAMPLING DATE: 03/03/2002 LAB ARRIVAL DATE: 03/07/2002 DUE DATE: 03/28/2002  
DU NUMBER: 90101A DATA SET NUMBER: 20020044 STUDY: CHESHIRE MONITORING STUDY PRIORITY: 1 LABORATORY :CRL

SAMPLE #	CRL LOG NUMBER	SAMPLE DESCRIPTION	SUSPENDED PARTICLE (g/filter)			
1	2002AH36D01	GUIDING HANDS SCHOOL	0.0000			
2	2002AH36S01	GUIDING HANDS SCHOOL	0.0000			
4	2002AH36S03	ADDAVILLE	0.0097			
DATE OF ANALYSIS			03/11-12/2002			
ANALYST			ES			

Reviewed by: FHA Date: 3/12/2002

CRL SOP: HK015	Date: 07 January 2000	Revision No: 1
Data review for the Analytical and Inorganic Group		Page 9 of 9

# ATTACHMENT II

## CRL Analytical and Inorganics Data Review Checklist

Batch Number: 20020044 Facility: CHESIRE MONITORING  
Parameter: PM10 CRL.SOP: AIG 047

Package Overview:	YES	NO
Raw Data Package Complete?	✓	
Results Reported Correctly?	✓	
Special Requests Done?	N/A	
Calculations Checked?	✓	
Calibration Not Exceeded?	N/A	
Manual Peak Integration performed? Circle one IC or GC and Check	N/A	
Field QC Checked?	N/A	
Quality Control:		
Holding Times Met?	N/A	
Preservation Checked?	N/A	
Proper Digestion Verified?	N/A	
Initial Instrument Performance Checks Verified?	✓	
Calibration Verification Checked?	N/A	
Sample-Specific QC (Internal Standards or Analytical Spikes) Okay?	N/A	
Matrix QC Checked?	N/A	
Digestion Blanks Checked?	N/A	
Spiked Blank Checked?	N/A	
LCS (if applicable) Checked?	N/A	
QCS (if applicable) Checked?	N/A	
Final Check		
Technical Review Done?	✓	
Narrative Complete?	✓	

Analyst: C. S. Peer Reviewer: FRAH

Date: 3/12/2002 Date: 3/12/2002

Comments Attached? (Y/N) N

<b>Data Set Number:</b>	<u>20020044</u>	<b>Parameter:</b>	<u>Suspended Particles</u>
<b>Facility Name:</b>	<u>CHESHIRE MONITORING STUDY</u>		
<b>Study Name:</b>	<u>CHESHIRE MONITORING STUDY</u>		
<b>Date of Narrative:</b>	<u>03/12/2002</u>	<b>Analyst:</b>	<u>ES</u>
		<b>Signature:</b>	<u>E.S.</u>

### ANALYSIS CASE NARRATIVE

Four (3) exposed filters were received for suspended particle analysis at the Central Regional Laboratory (CRL) on March 07, 2002. Those filters were fractions of clean filters, prepared at the CRL and sent to the field for exposure. Filter identification numbers and other pertinent information obtained from the individual filters and packaging envelopes are presented in the table below.

Filters ID	Samples ID	Tag Number
Q6279961	2002AH36D01	5-340168
Q6279963	2002AH36S01	5-340167
Q6279962	2002AH36S02	5-340170

Filter equilibrations and final weighting of exposed filters were performed according to CRL.SOP AIG047. Analysis of exposed filters began on 03/11/2002 and was completed on 03/12/2002. All exposed filters were in good conditions.

### QUALITY CONTROL (QC):

Analysis results were evaluated using the QC requirements of CRL.SOP AIG047. All the required quality control criteria for the laboratory, method, and system performance audits were evaluated and determined to be within the limits.

### SAMPLE RESULTS:

All the sample results are acceptable for use.

### ELECTRONIC DATA:

No electronic data.



# CHESHIRE AIR MONITORING PROJECT

## PM10

Parameter: Suspended Particles

Data Set Numbers: 20020044

Date of Analysis 03/11-12/2002

Analyst: ES

### BALANCE VERIFICATION:

Standard Weights	Balanced weight	Differences
Actual (g)	Balanced (g)	(g)
Limit +/-0.0005 g		
1.0000	1.0000	0.0000
2.0000	2.0000	0.0000
5.0000	5.0001	-0.0001

### QC-SUMMARY FOR EXPOSED FILTERS

Filter ID	CRL Sample	Analysis	ANALYST	Exposed
Number	I.D Number	Date		weight (g)
Q6279962	2002AH36S03	03/12/02	Analyst 1	4.3917
Q6279962	2002AH36S03	03/12/02	Analyst 2	4.3915
Differences (Limit +/- 5 mg).....				0.0002

**CHESHIRE AIR MONITORING PROJECT**  
**PM10**

Filter ID	CRL Sample	Sampling	Station	Sampler	Pstg	P1/Pa	Total	Pre Weight	Exposed	Weight	PM10
Number	I.D Number	Date	Location	SN	Avg		Volume (M^3)	of filters (g)	weight (g)	Gain	(UG/M^3)
<b>Data set Number 20020044</b>											
Q6279961	2002AH36D01	03/03/02	Guiding Hands School	3013	18.90		0.00	4.3700	4.3682	0.0000	ERR
Q6279963	2002AH36S01	03/03/02	Guiding Hands School	3012	18.35		0.00	4.3710	4.3690	0.0000	ERR
Q6279962	2002AH36S03	03/03/02	Addaville	3011	18.70		0.00	4.3820	4.3917	0.0097	ERR

## General information

## Standard weights, actual (g)

## Balanced weights, balanced (g)

Mettler Toledo	5.00	5.0001
2/26/02 <del>to</del>	1.00	1.0001
S/N 1120181846	0.50	0.5001
	2.00	1.9999
	7.00	7.0001

SARTORIUS	(500+200 <sup>(mg)</sup> +200+100)	1.0000	1.0001
S/N 37010119		2.0000	2.0001
2/27/2002 E.8		5.0000	4.9998

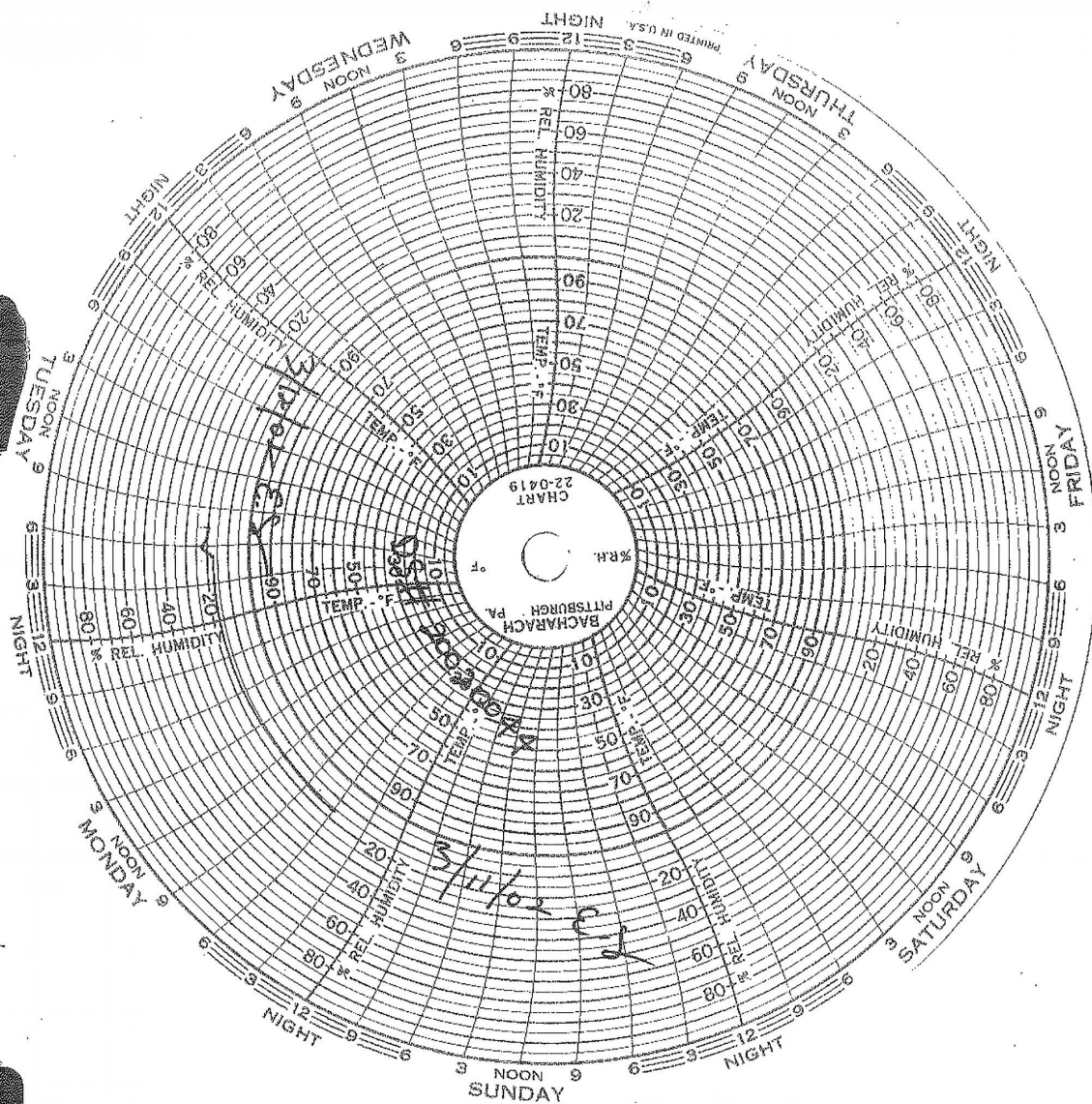
SARTORIUS	(500+200 <sup>(mg)</sup> +200+100)	1.0000	1.0001
S/N 37010119		2.0000	2.0000
3/06/2002		5.0000	4.9999

Mettler Toledo	4.00	3.9999
S/N 1120181846	5.00	5.0000
3/07/02 NF	50.00	50.0000
	60.00	60.0000

SARTORIUS	(500+200 <sup>mg</sup> +200+100)	1.0000	1.0000
S/N 37010119		2.0000	2.0000
3/12/02 E.8		5.0000	5.0001

FILTER I.D.	TARE wt (g)	DUP wt (g)	EXPOSED wt (g)	EXPOSED wt DUP (g)	COMMENTS
Q6279981	4.3392				
Q6279980	4.3277				
Q6279979	4.3413				
Q6279978	4.3286				
Q6279977	4.3605				
Q6279976	4.3560				
Q6279975	4.3479	4.3482 <sup>FMA</sup>			
Q6279974	4.3368				
Q6279973	4.3615				
Q6279972	4.3590				
Q6279971	4.3547				
Q6279970	4.3729				
Q6279969	4.3818				
Q6279968	4.3362	4.3364 <sup>FMA</sup>			
Q6279967	4.3575				
Q6279966	4.3708				
Q6279965	4.3650				
Q6279964	4.3367				
Q6279963	4.3710		4.690		
Q6279962	4.3820	4.3821 <sup>FMA</sup>	4.3917 <sup>FMA</sup> <del>4.3905</del>	4.3915	
Q6279961	4.3700	4.3681	4.3682		
Q6279960	4.3595				
Q6279959	4.3471		4.4685		
Q6279958	4.3600		4.4328	4.4328	





US EPA Region 5 Field Sample



5-340170-11

Parameters PM10

S M M D B D

Preservative None

Sample ID 02AH36SO3

X

Sampler Mike Murphy

Date 3-3-02

20020204

PM-10

SAROAD

OPERATOR OEPD

DATE 3-3-02

TSP

SITE

Albionville - 60027902

AVG. RECORDER RESP.

18.7

TEMP

C

K

FINAL WT

g

ELAPSED TIME

1440

MINUTES

PRESS

mmHg

INITIAL WT

g

FLOW

m<sup>3</sup>/min

TOTAL FLOW

m<sup>3</sup>

SAMPLE WT

g

STD

ACTUAL

PM-10

ug/m<sup>3</sup>

COMMENTS:



US EPA Region 5 Field Sample



5-340168-1

Parameters PM10

20020204

Preservative None S M M D B D

Sample ID 02AH36D01 X

Sampler Mike Murphy

Date 3-3-02

PM-10 ☒ SAROAD ☐ OPERATOR CEPP DATE           

TSP            SITE CHS H 3013           

AVG RECORDER RESP. 18.7 TEMP            °C            K            FINAL WT            g

ELAPSED TIME 1440 MINUTES PRESS            mmHg INITIAL WT            g

FLOW            m<sup>3</sup>/min TOTAL FLOW            m<sup>3</sup> SAMPLE WT            g

STD            ACTUAL            PM-10            µg/m<sup>3</sup>

COMMENTS:



US EPA Region 5 Field Sample



5-340167-1

Parameters PM10

20020202

Preservative None S M M D B D

Sample ID 02AH36SO1 X

Sampler Mike Murphy

Date 3-3-02

PM-10 ☒ SAROAD ☐ OPERATOR CEPA DATE           

TSP            SITE CHS H 5012 06277713

AVG RECORDER RESP. 18.35 TEMP            °C            K            FINAL WT            g

ELAPSED TIME 1440 MINUTES PRESS            mmHg INITIAL WT            g

FLOW            m<sup>3</sup>/min TOTAL FLOW            m<sup>3</sup> SAMPLE WT            g

STD            ACTUAL            PM-10            ug/m<sup>3</sup>

COMMENTS: